1997-98 SESSION COMMITTEE HEARING RECORDS

Committee Name:
Joint Committee on
Finance (JC-Fi)

Sample:

Record of Comm. Proceedings ... RCP

- > 05hrAC-EdR_RCP_pt01a
- > 05hrAC-EdR_RCP_pt01b
- > 05hrAC-EdR_RCP_pt02

- > <u>Appointments</u> ... Appt
- > **
- > Clearinghouse Rules ... CRule
- > **
- > Committee Hearings ... CH
- > **
- ➤ <u>Committee Reports</u> ... CR
- > **
- > Executive Sessions ... ES
- > **
- > <u>Hearing Records</u> ... HR
- > **
- Miscellaneous ... Misc
- > 97hrJC-Fi_Misc_pt118_LFB
- Record of Comm. Proceedings ... RCP
- > **

Transportation

State Highway Program

(LFB Budget Summary Document: Page 593)

LFB Summary Items for Which Issue Papers Have Been Prepared

Item #	<u>Title</u>
1	State Highway Rehabilitation Funding Level (Paper #853)
2	Major Highway Development Funding Level (Paper #854)
4	State Trunk Highway Maintenance Inflation (Paper #855)
-	East-West Freeway Resurfacing Reserve (Paper #856)

Joint Committee on Finance

From:

Bob Lang, Director

Legislative Fiscal Bureau

ISSUE

State Highway Rehabilitation -- Funding Level (DOT -- State Highway Program)

[LFB Summary: Page 593, #1]

CURRENT LAW

The state highway rehabilitation program, which is funded through both federal and state appropriations, is principally responsible for repairing deteriorated roads and bridges. The program is divided into three components: (a) existing highways (typically referred to as the "3R" program because it involves resurfacing, reconditioning and reconstruction of noninterstate state highways); (b) the interstate improvement program; and (c) state bridges.

GOVERNOR

Provide \$2,500,000 SEG and \$9,391,200 FED in 1997-98 and \$12,100,000 SEG and \$8,958,600 FED in 1998-99 for state highway rehabilitation.

DISCUSSION POINTS

1. The following table compares the funding provided for the state highway rehabilitation program in 1996-97 (base funding plus \$14,400,000 FED added by the Joint Committee on Finance due to actual federal aid being higher than anticipated) with the funding level proposed under the bill.

Actual 1996-97 and Proposed 1997-99 Funding Levels

<u>Fund</u>	Actual <u>1996-97</u>	1997-98	1998-99
SEG FED	\$218,602,100 <u>197,488,600</u>	\$214,632,600 192,131,000	\$224,162,600 191,698,400
TOTAL	\$416,090,700	\$406,763,600	\$415,861,000

2. The change in funding from 1996-97 to 1997-98 and 1998-99 reflects several items affecting the state highway rehabilitation appropriations, including standard budget adjustments and the transfer of funds among appropriations to more accurately reflect DOT's organizational structure. In order to provide a consistent basis for comparison of funding levels, the 1996-97 figures in the following table have been modified to reflect these more technical budgeting changes.

Funding Comparison With 1996-97 Modified to Reflect Technical Changes

<u>Fund</u>	Modified 1996-97	1997-98	1998-99
SEG FED	\$212,359,600 <u>197,139,800</u>	\$214,632,600 192,131,000	\$224,162,600 191,698,400
TOTAL	\$409,499,400	\$406,763,600	\$415,861,000

- 3. Compared to the modified 1996-97 figure, SEG funding increases by \$2,273,000 in 1997-98 and \$11,803,000 in 1998-99. This reflects the net effect of this item (\$2,500,000 in 1997-98 and \$12,100,000 in 1998-99), a decrease to fund railroad crossing repairs (-\$180,000 in 1997-98 and -\$250,000 in 1998-99) and projected savings from a proposed change to the required vertical clearance for structures above railroad tracks (-\$47,000 annually). Although FED funding decreases by \$5,008,800 in 1997-98 and \$5,441,400 in 1998-99 compared to the modified 1996-97 figure, this item shows increases of \$9,391,200 in 1997-98 and \$8,958,600 in 1998-99 because the additional \$14,400,000 in federal aid received in 1996-97 was not included in the base funding level.
- 4. Every two years DOT prepares the Six-Year Highway Improvement Program, which includes an anticipated schedule of rehabilitation projects. In preparing the schedule, DOT assumes that funding increases will be provided each biennium over the six-year period to cover inflation. Therefore, in order to maintain the schedule as it appears in the last six-year program (prepared in January, 1996) an inflationary increase would be needed. Since this schedule was prepared before the \$14.4 million in federal aid was added to the program last December, the increases needed would be calculated from a base of \$395,099,400 (\$409,499,400 minus \$14,400,000).

- 5. Compared to this base, the bill would fund increases of 3.0% in 1997-98 and 2.3% in 1998-99.
- 6. Based on forecasts of the consumer price index by DRI/McGraw-Hill, general inflation is expected to be 2.8% in and 3.0% in 1999. Based on these projections, an inflationary adjustment would require increases of \$11,062,800 in 1997-98 and \$23,247,600 in 1998-99. These are \$828,400 less in 1997-98 and \$2,189,000 more in 1998-99 than the amounts in the bill.
- 7. One frequently cited measure regarding the condition of the state highway system is the number of miles that are in need of rehabilitation. DOT indicates that in 1995, which was the last time a comprehensive inventory of the condition of the system was taken, 3,050 miles of state highways, or about 26%, were in need of rehabilitation. The standards that are used to determine when a segment of highway is in need of rehabilitation are based on the condition of the pavement and the underlying base, as well as various other factors, such as accident rates, traffic levels, lane widths and the presence of sharp curves and hills.
- 8. Given that resources are limited, it may not be possible to reduce the number of substandard miles. Instead, an alternate goal may be to fund the rehabilitation program at a level so that the number of substandard miles does not increase.
- 9. Currently, segments of highway are deteriorating to a substandard level faster than other substandard segments are being rehabilitated. Consequently, an inflationary increase in the program would not be sufficient to keep the number of miles in need of rehabilitation from increasing. DOT projects that an inflationary adjustment alone would result in a 50-mile increase in the number of substandard miles by the end of the next biennium.
- 10. With an additional \$14 million each year on top of an inflationary increase, DOT indicates that it could keep the number of substandard miles from increasing. However, this would require that certain highways be repaired at a less than ideal improvement level, which may be more costly in the long run. Under this scenario, for instance, DOT may use a thinner overlay on a repaving project than it usually would given traffic conditions. While this would be less costly, it would also require rehabilitation sooner than would otherwise be needed. In reality, DOT would probably not do this, since the Department's policy is to use an optimal investment strategy whenever possible. If DOT continued to follow this policy, a \$14 million increase over inflation could still result in an increase in the number of substandard miles.
- 11. With an additional \$21 million per year over inflation, DOT indicates that it could keep the number of substandard miles from increasing and also use an improvement level that minimizes long-term costs on the system.

ALTERNATIVES TO BASE

1. Approve the Governor's recommendation to provide \$2,500,000 SEG and \$9,391,200 FED in 1997-98 and \$12,100,000 SEG and \$8,958,600 FED in 1998-99 for state highway rehabilitation, which would provide 3.0% and 2.3% increases over the modified 1996-97 base.

Alternative 1	FED	SEG	TOTAL
1997-99 FUNDING (Change to Base)	\$18,349,800	\$14,600,000	\$32,949,800
[Change to Bill	\$0	\$0	\$0]

2. Provide \$1,671,600 SEG and \$9,391,200 FED in 1997-98 and \$14,289,000 SEG and \$8,958,600 FED in 1998-99 for the rehabilitation program, which would provide 2.8% and 3.0% annual increases over the modified 1996-97 base.

Alternative 2	FED	SEG	TOTAL
1997-99 FUNDING (Change to Base)	\$18,349,800	\$15,960,600	\$34,310,400
[Change to Bill	\$0	\$1,360,600	\$1,360,600J

3. Provide \$15,671,600 SEG and \$9,391,200 FED in 1997-98 and \$28,289,000 SEG and \$8,958,600 FED in 1998-99 for the rehabilitation program, which would provide 2.8% and 3.0% annual increases over the modified 1996-97 base, plus an additional \$14 million annually.

Alternative 3	FED	SEG	TOTAL
1997-99 FUNDING (Change to Base)	\$18,349,800	\$43,960,600	\$62,310,400
[Change to Bill	\$0	\$29,360,600	\$29,360,600]

4. Provide \$22,671,600 SEG and \$9,391,200 FED in 1997-98 and \$35,389,000 SEG and \$8,958,600 FED in 1998-99 for the rehabilitation program, which would provide 2.8% and 3.0% annual increases over the modified 1996-97 base, plus an additional \$21 million annually.

Alternative 4	FED	SEG	TOTAL
1997-99 FUNDING (Change to Base)	\$18,349,800	\$58,060,600	\$76,410,400
[Change to Bill	\$0	\$43,460,600	\$43,460,600]

5. Take no action.

Alternative 5	FED	SEG	TOTAL
1997-99 FUNDING (Change to Base)	\$0	\$0	\$0
[Change to Bill	- \$18,349,800	- \$14,600,000	- \$32,949,800]

Prepared by: Jon Dyck

MO#		·····	
BURKE	Y	N	Α
DECKER	Υ	N	Α
GEORGE	Υ	N	Α
JAUCH	Υ	N	Α
WINEKE	Y	N	A
SHIBILSKI	Υ	N	Α
COWLES	Υ	N	Α
PANZER	Y	N	A
JENSEN	Υ	N	A
OURADA	Y	N	Α
HARSDORF	Y	N	Α
ALBERS	Y	Ν	Α
GARD	Υ	N	Α
KAUFERT	Y	N	Α
LINTON	Υ	N	Α
coggs	Y	N	Α
AYE NO	····	ABS .	

Joint Committee on Finance

From:

Bob Lang, Director

Legislative Fiscal Bureau

ISSUE

Major Highway Development -- Funding Level (DOT -- State Highway Program)

[LFB Summary: Page 594, #2]

CURRENT LAW

Major highway projects are defined as projects that have an estimated cost exceeding \$5,000,000 and consist of at least one of the following: (a) construction of a new highway of 2.5 miles or more in length; (b) relocation of 2.5 miles or more of existing roadway; (c) the addition of one or more lanes at least five miles in length; or (d) the improvement of 10 miles or more of an existing divided expressway to freeway standards.

Major highway improvements are funded from three main sources: federal highway aid, the state segregated transportation fund and the proceeds of revenue bonds. In 1996-97, total funding for the program was \$162,179,000.

GOVERNOR

The following table compares the funding provided for the major highway development program in 1996-97 (including the \$7,600,000 FED increase added at the Committee's December, 1996, meeting under s. 13.10) with the funding level proposed under the bill. The SEG and total funding decreases reflect standard budget adjustments.

Major Highway Development Funding Level

<u>Fund</u>	<u>1996-97</u>	1997-98	1998-99
SEG	\$10,708,600	\$10,523,100	\$10,523,100
FED	40,935,100	75,935,100	40,935,100
SEG-S (Bonding)	110,535,300	75,535,300	110,535,300
TOTAL	\$162,179,000	\$161,993,500	\$161,993,500

DISCUSSION POINTS

- 1. The bill would maintain the funding for the major highway development program at the 1996-97 level, after making standard budget adjustments. Due to inflation, this would decrease the real size of the program.
- 2. Based on forecasts of the consumer price index by DRI/McGraw-Hill, general inflation is expected to be 2.8% in 1998 and 3.0% in 1999. Using these figures, the major highway program under the bill would drop, in constant 1997 dollars, from \$162.0 million in 1997 to \$157.6 million in 1998 and to \$153.0 million in 1999.
- 3. Periodically, DOT prepares an anticipated construction schedule for the enumerated major highway projects. These schedules are typically based on the assumption that the real size of the program will remain constant into the future. If the program is not adjusted for inflation, or if it is cut, as was the case in the 1995-97 budget, the schedule must be adjusted. Last fall, DOT prepared a schedule of projects for the Transportation Projects Commission that was based on the 1996-97 funding level.
- 4. DOT recently prepared a revised schedule, based on the funding level in the bill (see the attachment). As shown, the reduction in the real size of the program would result in delays for 12 projects, ranging from one year to two years. Since project schedules represent estimates based on factors other than funding, including the time needed to prepare projects for construction, the schedules will change in the future, even if the real funding level is maintained.
- 5. In order to maintain the previous schedule (except for changes made for nonbudgetary reasons), the program would have to be adjusted for inflation. Based on the DRI forecast, this would require \$4,535,800 in 1997-98 and \$9,531,700 in 1998-99.
- 6. Although the real size of the major highway program would fall under the bill, in the last ten years the program has nearly doubled in real terms. In its audit of transportation programs and revenues, the Legislative Audit Bureau reported a 98.1% increase in constant

dollars. Further, in 1996-97, the majors program represented 21.6% of all highway expenditures, while in 1987-88 it composed just 13% of the total program.

- 7. The growth in the major highway program over this period reflects the adoption of the Corridors 2020 plan by the Governor and the Legislature and the increased funding needed to implement that plan. However, if additional transportation revenues are not adopted as part of this budget, a reevaluation of the spending patterns within the highway program may be appropriate.
- 8. Under the bill, DOT projects that the number of substandard miles of existing state highway would increase from 3,050 to 3,100, even though an increase is provided for the highway rehabilitation program. To keep this from occurring and to make repairs consistent with life-cycle cost minimization principles, DOT indicates that an additional \$21 million per year would be needed.
- 9. The appropriate balance between funding for new highways and for repairing existing highways may be affected by decisions on transportation revenue increases. However, in the context of a budget without such increases, some have argued that consideration should be given to spending less on new projects and shifting the funds to the highway rehabilitation appropriation, even though this would result in further delays for currently enumerated projects. Since bonding can not be used for rehabilitation and there is a limited amount of SEG used in the major highway program, a transfer of this magnitude would need to be done using federal funds.
- 10. Conversely, others have argued that the economic development, safety and traffic congestion benefits of major highway projects makes it important to continue the program at its current real size, or to increase funding if a revenue increase is adopted.
- 11. One option to increase the real size of the program would be to increase funding to restore the real funding level that the program had in 1994-95. Excluding an increase targeted specifically to accelerate the STH 29 project, the 1995-97 transportation budget cut the program by \$43.9 million over the biennium, although higher-than-expected federal aid allowed \$18.8 million to be put back into the program. Because the program was reduced, projects that had not yet started were delayed by two to three years from the 1995 schedule. To restore the program to the 1994-95 level, while maintaining the STH 29 increase, increases of \$31,068,100 in 1997-98 and \$36,860,000 in 1998-99 would be needed.

ALTERNATIVES TO BASE

The Governor's recommendation to substitute \$35 million in federal aid for an equivalent amount of revenue bonding, as well as the overall role of revenue bonding in funding major

highway projects, is dealt with in a separate paper. Therefore, these alternatives portray all the changes to base as if they are either SEG or FED changes.

- 1. Approve the Governor's recommendation to maintain funding for the major highway development program at the 1996-97 adjusted base level (after making standard budget adjustments).
- 2. Provide \$4,535,800 SEG in 1997-98 and \$9,531,700 SEG in 1998-99 to fund a 2.8% increase in 1997-98 and a 3.0% increase in 1998-99 for the major highway development program.

Alternative 2	SEG
1997-99 FUNDING (Change to Base)	\$14,067,500
[Change to Bill	\$14,067,500]

3. Provide \$31,068,100 SEG in 1997-98 and \$36,860,000 SEG in 1998-99 to fund the major highway development program at the same real size as in 1994-95, while also maintaining the increase provided in the 1995-97 biennium for the STH 29 acceleration.

Alternative 3	SEG
1997-99 FUNDING (Change to Base)	\$67,928,100
[Change to Bill	<i>\$67,928,100]</i>

4. Transfer \$21,000,000 FED annually from the major highway development program to the state highway rehabilitation program.

Prepared by: Jon Dyck

MO#			
BURKE	Υ	N	Α
DECKER	Y	Ν	Α
GEORGE	Υ	N	Α
JAUCH	Υ	N	Α
WINEKE	Υ	N	Α
SHIBILSKI	Υ	N	Α
COWLES	Υ	N	Α
PANZER	Y	N	A
JENSEN	Υ	N	Α
OURADA	Y	N	Α
HARSDORF	Y	N	Α
ALBERS	Y	N	Α
GARD	Y	N	Α
KAUFERT	Y	Ν	Α
LINTON	Y	N	Α
coggs	Y	N	Α

AYE ____ NO ____ ABS ____

ATTACHMENT

Anticipated Final Lettings for Enumerated Major Highway Projects

	State Trunk Highway	Projected Year 1996 Schedule	of Final Lets* <u>Under Bill</u>	Difference
Projects Enumerated in 1987				_
Lake Arterial Project	794	1999	2001	2
Projects Enumerated in 1989				
Beaver Dam to Fond du Lac	151		*****	2
Beaver Dam to Waupun		1997	1999	1
Waupun to Fond du Lac		2004	2005	1
Green Bay to IH 94	29		2000	0
Green Bay to Chippewa Falls		2000	2000	0
Chippewa Falls to IH 94		2003	2003	U
Appleton to Marshfield**	10		2007	,
USH 45 to STH 110		2005	2006	1
STH 110 to Waupaca		2002	2002	0
Waupaca to USH 51		2007	2007	0
Wisconsin Rapids to Plover	54	1999	1999	0
Trego to Hawthorne	53	1999	1999	0
Burlington to STH 100	36	1997	1998	1
Projects Enumerated in 1991				
Tomahawk Bypass	51	2001	2001	0
Whitewater Bypass	12	2002	2002	0
STH 142 to STH 11	31	2001	2001	0
I-94 to River Falls	35	1999	1999	0
Appleton to Greenville	76	1998	1998	0
Lake Geneva to Slades Corners	50	2001	2002	1
STH 54 to Dykesville	57	2004	2004	0
USH 41 to STH 116	110	2002	2002	0
Abrams to STH 22	141	2003	2003	0
STH 145 to Abrams	41			_
USH 45 to Winnebago County		2000	2000	0
Kaukauna to CTH F		2003	2002	-1
Suamico to Abrams		2003	2003	0
Projects Enumerated in 1993				
Janesville Bypass	11	2003	2004	1
Sauk City to Middleton	12	2004	2005	1
Marshfield Mobility Study	13	2003	2005	2
Houlton to New Richmond	64	2006	2006	0
Fond du Lac Bypass	151	2006	2008	2
Random Lake to IH 43	57	2003	2003	0
Projects Enumerated in 1995				
Belmont to Dodgeville	151	2007	2008	1
Oconomowoc Bypass	16/67	2008	2008	0
Eau Claire Freeway	53	2007	2008	1

Total

^{*}This represents the projected year in which final lets will be made. In some instances, construction may continue into the following year.

Joint Committee on Finance

From:

Bob Lang, Director

Legislative Fiscal Bureau

ISSUE

State Trunk Highway Maintenance Inflation (DOT -- State Highway Program)

[LFB Summary: Page 596, #4]

CURRENT LAW

The state highway maintenance, repair and traffic operations program is responsible for activities such as minor pavement and bridge repairs, roadside mowing, snow and ice clearing, pavement marking and sign installation on the state trunk highway system. Most of the work is performed by county crews under contract with the state. The base budget for the program is \$139,477,500 SEG.

GOVERNOR

Increase funding by \$3,508,700 SEG in 1997-98 and \$7,122,700 SEG in 1998-99 to provide 3% annual inflationary increases in the highway maintenance and traffic operations program.

DISCUSSION POINTS

1. The bill would provide an inflationary adjustment for the major cost component of the SEG highway maintenance, repair and traffic operations appropriation. The major cost component accounts for about 84% of the total appropriated amount and is composed primarily of the contracts with counties to perform maintenance on state trunk highways. The remaining costs, which are primarily the salaries of the DOT staff who oversee maintenance, were excluded from the calculation since salary increases are budgeted separately through pay plan reserves.

- 2. DOT estimates that not providing inflation for maintenance would force counties to reduce maintenance staff by a total of 90 employees each year of the biennium. DOT indicates that this reduction would be felt primarily in the area of winter maintenance.
- 3. The inflationary adjustment provided in the bill is based on a 3% annual inflation rate. However, based on forecasts of the consumer price index by DRI/McGraw-Hill, general inflation is expected to be 2.8% in 1998 and 3.0% in 1999. Based on these projections, an inflationary adjustment would require increases of \$3,274,800 in 1997-98 and \$6,881,800 in 1998-99, which, over the biennium, would be \$474,800 less than the funding provided in the bill.
- 4. In a December, 1996, evaluation of transportation programs and revenues, the Legislative Audit Bureau reported that funding for maintenance and traffic operations declined by 9.3% in real terms between 1987-88 and 1996-97. At the same time, the number of state highway lane miles increased by 2.5%. Because funding for maintenance has declined in real terms over time, an increase above inflation may be warranted.
- 5. Since the program was increased by an amount less than inflation in the 1995-97 budget, one option would be to restore the real level of funding that the program had in 1994-95. Based on the consumer price index for 1996 and projections for 1997, 1998 and 1999, increases of \$4,340,800 in 1997-98 and \$7,979,700 in 1998-99 would be required to restore the real 1994-95 level. Over the biennium, this would be \$1,689,100 higher than the funding provided in the bill.

ALTERNATIVES TO BASE

1. Approve the Governor's recommendation to provide \$3,508,700 SEG in 1997-98 and \$7,122,700 SEG in 1998-99 for highway maintenance and traffic operations, which would provide a 3% annual increase.

Alternative 1	SEG
1997-99 FUNDING (Change to Base)	\$10,631,400
[Change to Bill	\$0]

2. Provide \$3,274,800 SEG in 1997-98 and \$6,881,800 SEG in 1998-99 for highway maintenance and traffic operations, which would provide 2.8% and 3.0% annual increases.

Alternative 2	SEG
1997-99 FUNDING (Change to Base)	\$10,156,600
[Change to Bill	- \$474,800]

Provide \$4,340,800 SEG in 1997-98 and \$7,979,700 SEG in 1998-99 for highway 3. maintenance and traffic operations, which would restore the real funding level provided in 1994-95.

Alternative 3	SEG
1997-99 FUNDING (Change to Base)	\$12,320,500
[Change to Bill	\$1,689,100]

4. Take no action.

Alternative 4	SEG
1997-99 FUNDING (Change to Base)	\$0
[Change to Bill	- \$10,631,400]

Prepared by: Jon Dyck

MO#			
BURKE	Y	N	_
DECKER	Ý		Α
GEORGE	Ϋ́	N	A
JAUCH	Y	N	A
WINEKE	-	N	A
SHIBILSKI	Y	N	Α
COWLES	Υ	N	Α
	Υ	N	Α
PANZER	Y	N	A
JENSEN	Υ		_
OURADA	Ý	N	Α
HARSDORF	Ϋ́	N	A
ALBERS	-	N	A
GARD	Y	Ν	A
KAUFERT	Υ	N	Α
LINTON	Υ	N	Α
	Υ	N	Α
COGGS	Y	N	A
AYE NO_	_ Ai	BS	

Joint Committee on Finance

From:

Bob Lang, Director

Legislative Fiscal Bureau

ISSUE

East-West Freeway Resurfacing Reserve (DOT -- State Highway Program)

CURRENT LAW

1995 Act 113 placed \$13,349,000 in 1995-96 and \$13,349,000 in 1996-97 in reserve in the transportation fund until June 30, 1999, for the rehabilitation of the East-West freeway from downtown Milwaukee to Waukesha. The Act specified that DOT could not encumber any funds for this project unless the Joint Committee on Finance transferred the funds in reserve in the transportation fund to the STH rehabilitation appropriation for this purpose. On April 16, 1996, the Committee approved the release of \$25,698,000 for East-West freeway rehabilitation. The remaining \$1,000,000 was kept in reserve, however, because the Committee objected to spending this amount on six variable message signs to be used for traffic mitigation.

GOVERNOR

No provision.

MODIFICATION TO BASE

Eliminate the transportation fund reserve account for the purpose of funding construction activities relating to highway resurfacing or bridge repair on the East-West Freeway from downtown Milwaukee to Waukesha, allowing the remaining \$1,000,000 in the reserve to lapse to the transportation fund.

Explanation: The reserve provision would expire at the end of the 1997-99 biennium, but to have the remaining \$1,000,000 balance available to appropriate during the biennium, the reserve account must be eliminated. The reserve is currently treated as a reduction in available revenues for 1996-97. Since the estimate of the ending balance for 1996-97 in LFB Paper #810 (-\$4.6 million) was based on the assumption that the amount reserved would not be spent in 1996-97, deleting the reserve would not change that figure.

Prepared by: Jon Dyck

MO# Modification LBURKE DECKER **GEORGE** JAUCH WINEKE SHIBILSKI **COWLES PANZER JENSEN OURADA** HARSDORF **ALBERS GARD KAUFERT** LINTON COGGS